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Device to measure a slight amt. of injected material under microscope

by using micropipette, such as injecting DNA into cells

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Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 62254034	A	19871105	JP 8697185	A	19860425	198750 B
JP 94052227	B2	19940706	JP 8697185	A	19860425	199425

Priority Applications (No Type Date): JP 8697185 A 19860425

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 62254034	A	3		
JP 94052227	B2	3	G01N-001/28	Based on patent JP 62254034

Abstract (Basic): JP 62254034 A

A device to measure a slight amt. of injected material
comprises a

TV camera (3) which is mounted on the microscope (1) to take the
microscopic images; an image processing device (5) which processes
image signals from the TV camera (3) to display on a CRT (4), and
to

read the movement of the meniscus of the material in the
micropipette

(2) before and after injecting the material, and read outside dia.
of

the micropipette at the position of meniscus; and an operating
device

(6) to calculate the amt. of injected material from the movement of
meniscus and the outside dia. of the micropipette.

USE/ADVANTAGE - Used in injecting a slight amt. of material such as
DNA into cells, etc. using a micropipette under view range of
microscope. In this method, since the movement of meniscus in
micropipette and the dia. of micropipette are read by processing
microscopic images and the amt. of injected material is calculated
automatically from the data, the amt. of injected material can be
measured easily and accurately. In addn., this method can be
applied to

any materials without any restriction.

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Title Terms: DEVICE; MEASURE; SLIGHT; AMOUNT; INJECTION; MATERIAL;
MICROSCOPE; MICROPIPETTE; INJECTION; DNA; CELL

Index Terms/Additional Words: DEOXYRIBONUCLEIC; ACID

Derwent Class: B04; D16; J04; S03

International Patent Class (Main): G01N-001/28

International Patent Class (Additional): C12M-001/00; G01N-001/30;
G01N-033/48

File Segment: CPI; EPI